

## Effects of total body workout in women with mild-to-moderate clinical depression

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### ABSTRACT

**Objective:** The objective of this study was to examine the protective effects of exercise, against feelings of depression and to determine whether the severity of depression changes on the short-term exercise plan. **Background:** “Depression is not a sign of weakness; it is a sign of having tried to remain strong by doing exercise.” There are many individuals who suffer a general malaise of low mental well-being characterized by emotional distress, low self-esteem, poor body image, hopelessness, stress, and anxiety. They are also thought to be a major cause of obesity, diabetes, and cancers. “No health is without a mental health.” Depression will be the second cause of Global Disease Burden by the year 2020, the WHO states that the burden of depression is 50% higher for females than males. Indians are reported to be among the worlds most depressed. **Methodology:** A group of 30 adult women with the age group of 25–35 years and with the score of 11–20 points in the Beck’s inventory questionnaire for depression were included in the study and were grouped into Group A: Working women and Group B: Non-working women, whereas women with recent trauma, undergone recent surgery, systemic diseases, and peripheral neurological problems were excluded. Along with the questionnaire, whole body measurement was done. After the evaluation, they were given whole body workouts for 3 weeks, daily in the evening for about 45 min. **Results:** The result will be revealed at the end of the study. **Conclusion:** Beck’s inventory questionnaire scale shows a significant increase, which was taken in pre-test treatment and post-test treatment. The whole body workout in women with mild-to-moderate clinical depression shows improved mental status and decreased body measurement.

**KEY WORDS:** Beck’s inventory questionnaire scale, Burden, Depression

### INTRODUCTION

Depression is a reactive response of bereavement for impending death, suffering, or the loss of body function.<sup>[1]</sup> Depression refers to the feelings of despair and hopelessness, negative shifts in perception, and decreased interest in activities that one provided pleasure. A person may have a depressed personality such as thyroid disorder.<sup>[2]</sup>

Depression ranges in seriousness from mild, temporary episodes of sadness to severe, persistent depression. Clinical depression is the more severe form of depression, also known as major depression or major depressive disorder.<sup>[3]</sup> It is not the same as depression caused by loss, such as the death of loved one, or medical condition, therefore, experience

sadness throughout his or her entire life.<sup>[4]</sup> As in most cases of depression, a person may have one or more episodes of depression, before and after which a normal mood exists.<sup>[5]</sup>

Recently, there has been a growing trend in India of shifting the age-old status of women from homemakers to the working class, which offers them independence, financial, and stability.<sup>[6]</sup> In the study, released by the Associated Chambers of Commerce and Industry, working women in the age of 21–52 years were surveyed. 68% of the women were afflicted with lifestyle ailments such as obesity, depression, chronic backache, diabetes, and hypertension. It is said that long hours of working women to suffer from depression compared to women of lesser levels of psychological demands at work. Work pressure and deadlines have let 53% of the respondents to skip meals and go for junk food.

The role of women in the society is constantly questioned, and for centuries, women have struggled

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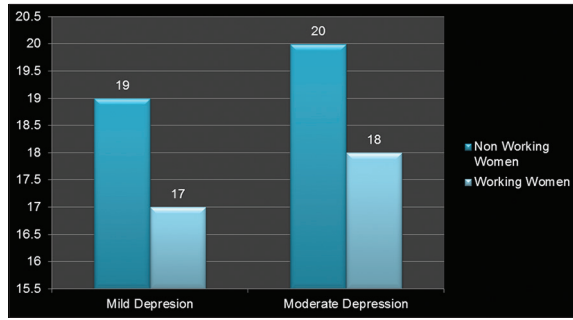


Figure 1: Comparison of pre test on Beck's inventory questionnaire on group a and b

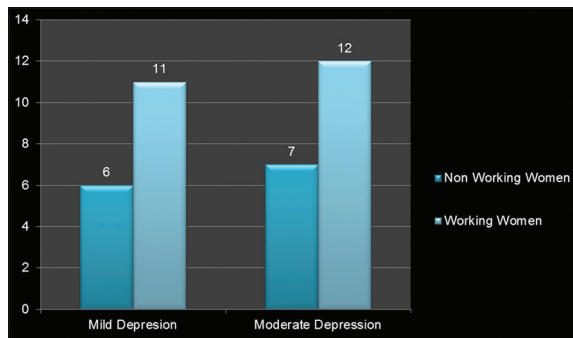


Figure 2: Comparison of post test on Beck's inventory questionnaire on group a and b

to find their place in a world that is predominantly male oriented.<sup>[7,8]</sup> Woman has a great part to play in the progress of our country, as the mental and physical contact of women with life is much more lasting and comprehensive than that of men.<sup>[9]</sup> Women may work in an office from nine to five or whatever may be, but their work does not end at the office.<sup>[10]</sup> After working an 8 h or more a day, a mother will come home to take care of her children, husband, and house.<sup>[11]</sup>

**Prevalence of Depression**

- Depression prevalence in India - 9%
- Major depressive episode - 36%
- Average age of the onset of depression - 31.9.<sup>[12]</sup>

**Causes of Depression**

- Poor quality of sleep.
- Lack of exercise.
- Poor nutrition.
- Excessive intake of alcohol.
- Drug abuse.
- Hypothyroidism.
- Sunlight exposure.<sup>[13,14]</sup>

**Contributing Factors**

Many factors in women may contribute to depression such as developmental, reproductive, hormonal, genetic, and other biological differences.<sup>[15]</sup>

For example, premenstrual syndrome, childbirth, infertility, and menopause.

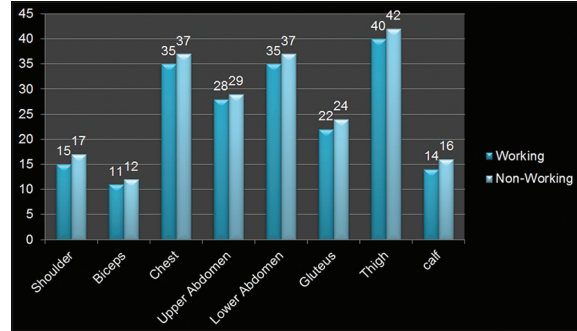


Figure 3: Comparison of circumference on pre test

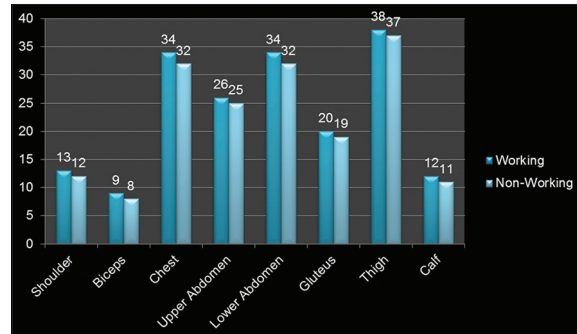


Figure 4: Comparison of circumference post test

Table 1: Pre-test for depression in working and non-working women using Beck's inventory questionnaire

Working women		Non-working women	
Group A - 15		Group B - 15	
Name	Score	Name	Score
Mythil. N	18	Yamini. P	18
Roja. N	17	Pavithra. K	19
Sangeetha. R	18	Shruthi. H	18
Latha. R	17	Vaishnavi. D	17
Nirmala. N	18	Swetha. E	17
Gayathri. R	17	Saraswathi. J	18
Lakshmi. R	17	Merlin. N	19
Eswari. S	18	Saranya. S	19
Bhuvana. K	18	Praveena. U	19
Divya. A	19	Renuka. P	18
Sumathi. S	17	Puja. T	18
Thesam. H	18	Kotteshwari. H	18
Bharathi. P	17	Monisha. I	20
Rohini. S	19	Ramya. K	19
Noorjahan. A	19	Archana. A	19

Social factors may also lead to higher rates of clinical depression among women, including stress from women, family responsibilities, the roles and expectations of women, and increased rates of sexual abuse and poverty.<sup>[16]</sup>

**Women's Attitude Toward Depression**

According to Mental Health America Survey on public attitudes and beliefs about clinical depression:

- More than one half of women believe that it is "normal" for a woman to be depressed during menopause and the treatment is not necessary.<sup>[17,18]</sup>

- More than one half of women believe that depression is a “normal” part of aging.<sup>[19,20]</sup>
- More than one half believe that it is normal for a mother to feel depressed for at least 2 weeks after giving birth.<sup>[21]</sup>
- More than one half of women cite denial as a barrier to treatment while 41% of women surveyed cited embarrassment or shame as barriers to treatment.<sup>[22,23]</sup>
- In general, over one half of the women said that they think they “know” more about depression than men do.<sup>[24,25]</sup>

## METHODOLOGY

A group of 30 adult women with the age group of 25–35 years and with the score of 11–20 points in the Beck’s inventory questionnaire for depression were included in the study and were grouped into Group A: Working women and Group B; Non-working women, whereas women with recent trauma, undergone recent surgery, systemic diseases, and peripheral neurological problems were excluded. Along with the questionnaire, whole body measurement was done. After the evaluation, they were given whole body workouts for 3 weeks, daily in the evening for about 45 min.

**Table 2: Post-test for depression in working and non-working women using Beck’s inventory questionnaire**

Working women		Non-working women	
Group A - 15		Group B - 15	
Name	Score	Name	Score
Mythili. N	11	Yamini. P	8
Roja. N	11	Pavithra. K	7
Sangeetha. R	12	Shruthi. H	6
Latha. R	11	Vaishnavi. D	7
Nirmala. N	11	Swetha. E	7
Gayathri. R	12	Saraswathi. J	6
Lakshmi. R	11	Merlin. N	8
Eswari. S	12	Saranya. S	6
Bhuvana. K	10	Praveena. U	7
Divya. A	11	Renuka. P	7
Sumathi. S	12	Puja. T	6
Thesam. H	11	Kotteshwari. H	8
Bharathi. P	10	Monisha. I	6
Rohini. S	11	Ramya. A	8
Noorjahan. A	10	Archana. A	7

**Table 3: Pre-test - whole body measurement**

Pre-test	Shoulder	Biceps	Chest	Upper abdomen	Lower abdomen	Gluteus	Thigh	Calf
Working women	15	11	35	28	35	22	40	14
Non-working women	17	12	37	29	37	23	41	15

**Table 4: Post-test - whole body measurement**

Post-test	Shoulder	Biceps	Chest	Upper abdomen	Lower abdomen	Gluteus	Thigh	Calf
Working women	13	9	34	26	34	20	38	12
Non-working women	12	8	32	25	32	19	37	11

## Procedure

Each group was given total body workout everyday in the evening for about 45 min for 3 weeks. Physiotherapist will demonstrate the exercise in the front of the two groups. Before starting the total body workout, warm-up was given for each session. Workouts were performed along with the music. After completing the workouts, cool down stretch was given for each session. Sets were increased for every week. Week 1 - 15\*1 sets, week 2 - 15\*2/workout, and week 3 15\*3/workouts were given, Tables 1-4.

## Outcome Measures

Becks inventory questionnaire

## RESULTS

Groups A and B participated effectively in the short-term exercise plan for 25 days. Group B showed a significant difference compared to Group A. Both Groups A and B showed significant result in pre- and post-test.

## DISCUSSION

The result of the study “the effects of total body workout in women with mild-to-moderate clinical depression,” this indicates that total body workout was evident in the positive progress of depression.

### Compare the Post-test Values after 3 Weeks Program of Groups A and B

This shows significance effect on Group A and Group B, but increased significance on Group B (non-working women) by decreasing the shows significant increase, which was taken in pre-test treatment and post-test treatment.

Group B shows significant increase than Group A because Group B that is non-working women they only have stress from their children, husbands, and family, but Group A working women have these all stress as same as Group A along with that they have additional stress from their office work which does not reduce their stress, it adds up more stress day by day.

Hence comparing to Group A Group B shows increased significance which was assessed by pre-test treatment and post-test treatment.

## CONCLUSION

Beck's inventory questionnaire scale shows a significant increase, which was taken in pre-test treatment and post-test treatment.

The whole body workout in women with mild-to-moderate clinical depression shows improved mental status and decreased body measurement.

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